SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

AUTOL Profi DK-Kat
Art.: 1123

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture:
System cleaner for vehicle fuel units (diesel engines)
Sector of use [SU]:
SU 1 - Agriculture, forestry, fishery
SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
SU 22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against:
Chemical product category [PC]:
PC 13 - Fuels
Process category [PROC]:
PROC 5 - Mixing or blending in batch processes
PROC 11 - Non industrial spraying
Article Categories [AC]:
AC 1 - Vehicles
Environmental Release Category [ERC]:
ERC 2 - Formulation into mixture
ERC 9a - Widespread use of functional fluid (indoor)

1.3 Details of the supplier of the safety data sheet

Eni Schmiertechnik GmbH, Paradiesstraße 14, 97080 Würzburg, Germany
Phone: 0931/9 00 98-0, Fax: 0931/9 84 42
www.enischmiertechnik.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

+49 228 19240 (D-53113 Bonn, 24 hour)

Telephone number of the company in case of emergencies:

---

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Hazard class</th>
<th>Hazard category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>4</td>
<td>H302-Harmful if swallowed.</td>
</tr>
<tr>
<td>Asp. Tox.</td>
<td>1</td>
<td>H304-May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>2</td>
<td>H411-Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)

Danger

H302-Harmful if swallowed. H304-May be fatal if swallowed and enters airways. H411-Toxic to aquatic life with long lasting effects.

P273-Avoid release to the environment.


EUH066-Repeated exposure may cause skin dryness or cracking.

2-Ethylhexyl nitrate
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

2.3 Other hazards
The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
Product can compose a film on the water surface, which can prevent oxygen exchange.
Hazardous to drinking water, on escape of even small quantities.

SECTION 3: Composition/information on ingredients

3.1 Substance
n.a.

3.2 Mixture
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

<table>
<thead>
<tr>
<th>Substance</th>
<th>Registration number (REACH)</th>
<th>Index</th>
<th>EINECS, ELINCS, NLP</th>
<th>CAS</th>
<th>content %</th>
<th>Classification according to Regulation (EC) 1272/2008 (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexyl nitrate</td>
<td>01-2119539586-27-XXXX</td>
<td>---</td>
<td>248-363-6</td>
<td>27247-96-7</td>
<td>20-40</td>
<td>Acute Tox. 4, H302, Acute Tox. 4, H312, Acute Tox. 4, H332, Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

2-Ethylhexane Substance for which an EU exposure limit value applies.
4.1 Description of first aid measures

**Inhalation**
Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.
If the person is unconscious, place in a stable side position and consult a doctor.

**Skin contact**
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

**Eye contact**
Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

**Ingestion**
Rinse the mouth thoroughly with water.
Do not induce vomiting. Consult doctor immediately.
Danger of aspiration
In case of vomiting, keep head low so that the stomach content does not reach the lungs.
Immediate admittance to a hospital.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

The following may occur:
- Irritation of the eyes
- With long-term contact:
  - Drying of the skin.
  - Dermatitis (skin inflammation)
- If solvent components are inhaled above the air threshold-value:
  - Irritation of the respiratory tract
  - Coughing
  - Headaches
  - Dizziness
- Effects/damages the central nervous system
- Coordination disorders
- Cramps
- Ingestion:
  - Drop in blood pressure
  - Gastrointestinal disturbances
- Nausea
- Vomiting
- Danger of aspiration
- Oedema of the lungs
- Chemical pneumonitis (condition similar to pneumonia)

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Gastric lavage (stomach washing) only under endotracheal intubation.
Subsequent observation for pneumonia and pulmonary oedema.
SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
CO2
Foam
Dry extinguisher

Unsuitable extinguishing media
Water

5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
- Oxides of carbon
- Oxides of nitrogen
- Toxic pyrolysis products.
- Flammable vapour/air mixtures
- Dangerous vapours heavier than air.
In case of spreading near the ground, flashback to distance sources of ignition is possible.

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Remove possible causes of ignition - do not smoke.
Avoid inhalation, and contact with eyes or skin.
If applicable, caution - risk of slipping.

6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent from entering drainage system.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling
7.1.1 General recommendations
Ensure good ventilation.
Avoid inhalation of the vapours.
If applicable, suction measures at the workstation or on the processing machine necessary.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Avoid contact with eyes or skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals. Store product closed and only in original packing. Not to be stored in gangways or stair wells. Solvent resistant floor Store in a well ventilated place. Protect from direct sunlight and warming.

### 7.3 Specific end use(s)

No information available at present.

---

**SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):

1200 mg/m³

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, &lt; 2% aromatics</th>
<th>Content %: 50-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-TWA: 1200 mg/m³ (&gt; = C7 normal and branched chain alkanes)</td>
<td>WEL-STELE: 2(II)</td>
<td>(AGW)</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td>- Draeger - Hydrocarbons 2/a (81 03 581)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Draeger - Hydrocarbons 0,1%/c (81 03 571)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Compur - KITA-187 S (551 174)</td>
<td></td>
</tr>
<tr>
<td>BMGV:</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>2-Ethylhexanol</th>
<th>Content %: 1-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-TWA: 1 ppm (5,4 mg/m³) (EU)</td>
<td>WEL-STELE: ---</td>
<td>---</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td>- Draeger - Alcohol 100/a (CH 29 701)</td>
<td></td>
</tr>
<tr>
<td>BMGV:</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>

---

2-Ethylhexylnitrate

**Area of application**

<table>
<thead>
<tr>
<th>Exposure route / Environmental compartment</th>
<th>Effect on health</th>
<th>Descriptor</th>
<th>Value</th>
<th>Unit</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment - freshwater</td>
<td>PNEC</td>
<td>0.8</td>
<td>µg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - marine</td>
<td>PNEC</td>
<td>0.08</td>
<td>µg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment</td>
<td>PNEC</td>
<td>0.00074</td>
<td>mg/kg dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - soil</td>
<td>PNEC</td>
<td>0.000191</td>
<td>mg/kg dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer</td>
<td>Human - dermal</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>0.52</td>
<td>mg/kg bw/day</td>
</tr>
<tr>
<td>Consumer</td>
<td>Human - inhalation</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>0.087</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Consumer</td>
<td>Human - oral</td>
<td>Long term, systemic effects</td>
<td>DNEL</td>
<td>0.025</td>
<td>mg/kg bw/day</td>
</tr>
</tbody>
</table>

---

EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). (8) = Inhalable fraction (2017/164/EU). (9) = Respirable fraction (2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany). Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage. ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
### 2-Ethylhexanol

<table>
<thead>
<tr>
<th>Area of application</th>
<th>Exposure route / Environmental compartment</th>
<th>Effect on health</th>
<th>Descriptor</th>
<th>Value</th>
<th>Unit</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment - freshwater</td>
<td>PNEC</td>
<td>Long term, local effects</td>
<td>0.017</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - marine</td>
<td>PNEC</td>
<td>Long term, systemic effects</td>
<td>0.0017</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sporadic (intermittent) release</td>
<td>PNEC</td>
<td>Long term, systemic effects</td>
<td>0.17</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sewage treatment plant</td>
<td>PNEC</td>
<td>Long term, systemic effects</td>
<td>10</td>
<td>mg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment, freshwater</td>
<td>DNEL</td>
<td>Long term, local effects</td>
<td>28</td>
<td>mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - sediment, marine</td>
<td>PNEC</td>
<td>Long term, systemic effects</td>
<td>0.028</td>
<td>mg/kg dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - soil</td>
<td>PNEC</td>
<td>Long term, systemic effects</td>
<td>0.047</td>
<td>mg/kg dw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment - oral (animal feed)</td>
<td>PNEC</td>
<td>Long term, systemic effects</td>
<td>55</td>
<td>mg/kg feed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Consumer
- **Human - dermal** (Long term, local effects)
  - DNEL: 0.022 mg/cm²

#### Workers / employees
- **Human - dermal** (Long term, systemic effects)
  - DNEL: 1 mg/kg bw/day
- **Human - inhalation** (Long term, systemic effects)
  - DNEL: 0.35 mg/m³
- **Human - dermal** (Long term, local effects)
  - DNEL: 0.044 mg/cm²

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques. These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

#### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.
Eye/face protection:
Tight fitting protective goggles (EN 166) with side protection, with danger of projections.

Skin protection - Hand protection:
Solvent resistant protective gloves (EN 374).
If applicable
Protective PVC gloves (EN 374)
Protective nitrile gloves (EN 374)
Permeation time (penetration time) in minutes:
\[ \geq 240 \]
The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
If OES or MEL is exceeded.
Filter A2 P2 (EN 14387), code colour brown, white
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Brown</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
<td>n.a.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>63 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>n.a.</td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapour density (air = 1)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density</td>
<td>0.872 g/ml</td>
</tr>
<tr>
<td>Bulk density</td>
<td>n.a.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble, product floats.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>2.55 mm²/s (40°C)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product is not explosive.</td>
</tr>
</tbody>
</table>
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 19.06.2017 / 0025
Replacing version dated / version: 06.12.2016 / 0024
Valid from: 19.06.2017
PDF print date: 19.06.2017
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Art.: 1123

**9.2 Other information**

- Oxidising properties: No
- Miscibility: Not determined
- Fat solubility / solvent: Not determined
- Conductivity: Not determined
- Surface tension: Not determined
- Solvents content: Not determined

#### SECTION 10: Stability and reactivity

**10.1 Reactivity**
The product has not been tested.

**10.2 Chemical stability**
Stable with proper storage and handling.

**10.3 Possibility of hazardous reactions**
No dangerous reactions are known.

**10.4 Conditions to avoid**
See also section 7.
Heating, open flame, ignition sources

**10.5 Incompatible materials**
See also section 7.
Avoid contact with strong oxidizing agents.

**10.6 Hazardous decomposition products**
See also section 5.2
No decomposition when used as directed.

#### SECTION 11: Toxicological information

**11.1 Information on toxicological effects**
Possibly more information on health effects, see Section 2.1 (classification).

<table>
<thead>
<tr>
<th>AUTOL Profi DK-Kat</th>
<th>Art.: 1123</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity / effect</td>
<td>Endpoint</td>
</tr>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>ATE</td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>ATE</td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>ATE</td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity:</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard:</td>
<td></td>
</tr>
<tr>
<td>Symptoms:</td>
<td></td>
</tr>
</tbody>
</table>

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

**Toxicity / effect** | **Endpoint** | **Value** | **Unit** | **Organism** | **Test method** | **Notes**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>ATE</td>
<td>1720 - 2000</td>
<td>mg/kg</td>
<td>calculated value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>ATE</td>
<td>&gt;2000</td>
<td>mg/kg</td>
<td>calculated value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>ATE</td>
<td>&gt;20</td>
<td>mg/l/4h</td>
<td>calculated value, Vapours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td></td>
<td>&gt;20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity:</td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard:</td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptoms:</td>
<td></td>
<td></td>
<td>n.d.a.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2-Ethylhexylnitrate

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>&gt;9640</td>
<td>mg/kg</td>
<td>Rat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td>Vapours</td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>LC50</td>
<td>&gt;5000</td>
<td>mg/m3/8h</td>
<td>Rat</td>
<td>OECD 403 (Acute Inhalation Toxicity)</td>
<td>Repeated exposure may cause skin dryness or cracking.</td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td>LD50</td>
<td>&gt;5000</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 404 (Acute Dermal Irritation/Corrosion)</td>
<td>Analogue conclusion, Drying of the skin, Dermatitis (skin inflammation)</td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td>LDLo</td>
<td>4820</td>
<td>mg/kg</td>
<td>Rabbit</td>
<td>OECD 405 (Acute Eye Irritation/Corrosion)</td>
<td>Analogue conclusion, Slightly irritant</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td>Rat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>Salmonella typhimurium</td>
<td>in vivo</td>
<td></td>
<td></td>
<td>OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)</td>
<td>Analogue conclusion, Negative</td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity:</td>
<td>OECD 414 (Prenatal Developmental Toxicity Study)</td>
<td></td>
<td></td>
<td></td>
<td>Analogue conclusion, Negative</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure (STOT-SE):</td>
<td>OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)</td>
<td></td>
<td></td>
<td></td>
<td>Analogue conclusion, No indications of such an effect.</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure (STOT-RE):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Symptoms:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>drying of the skin, headaches, fatigue, dizziness, nausea, diarrhoea, vomiting</td>
<td></td>
</tr>
<tr>
<td>Toxicity / effect</td>
<td>Endpoint</td>
<td>Value</td>
<td>Unit</td>
<td>Organism</td>
<td>Test method</td>
<td>Notes</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------</td>
<td>--------</td>
<td>---------</td>
<td>----------</td>
<td>-------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Acute toxicity, by oral route:</td>
<td>LD50</td>
<td>3290</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 401 (Acute Oral Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by dermal route:</td>
<td>LD50</td>
<td>&gt;3000</td>
<td>mg/kg</td>
<td>Rat</td>
<td>OECD 402 (Acute Dermal Toxicity)</td>
<td></td>
</tr>
<tr>
<td>Acute toxicity, by inhalation:</td>
<td>LC50</td>
<td>2,7</td>
<td>mg/l/4h</td>
<td>Rat</td>
<td>Aerol</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation:</td>
<td>LC50</td>
<td>2,7</td>
<td>mg/l/4h</td>
<td>Rat</td>
<td>OECD 404 (Acute Dermal Irritation/Corrosion)</td>
<td>Irritant</td>
</tr>
<tr>
<td>Serious eye damage/irritation:</td>
<td>LC50</td>
<td>2,7</td>
<td>mg/l/4h</td>
<td>Rat</td>
<td>OECD 405 (Acute Eye Irritation/Corrosion)</td>
<td>Irritant</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation:</td>
<td></td>
<td></td>
<td></td>
<td>Guinea pig</td>
<td>OECD 406 (Skin Sensitisation)</td>
<td>Not sensitising</td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td>NOAEL</td>
<td>750</td>
<td>mg/kg</td>
<td>bw/d</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**2-Ethylhexanol**

- **Skin corrosion/irritation:**
  - Rabbit: OECD 404 (Acute Dermal Irritation/Corrosion) - Not irritant, repeated exposure may cause skin dryness or cracking.
- **Serious eye damage/irritation:**
  - Rabbit: OECD 405 (Acute Eye Irritation/Corrosion) - Mild irritant
- **Respiratory or skin sensitisation:**
  - OECD 406 (Skin Sensitisation) - Not sensitising
- **Germ cell mutagenicity:**
  - Salmonella typhimurium: OECD 476 (In Vitro Mammalian Cell Gene Mutation Test) - Negative
- **Reproductive toxicity:**
  - NOAEL 100 mg/kg: OECD 421 (Reproduction/Developmental Toxicity Screening Test)
  - NOAEL 20 mg/kg bw/d: Negative
- **Symptoms:**
  - drying of the skin, may cause headaches and vertigo, nausea, drop in blood pressure, diarrhoea, unconsciousness
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 19.06.2017 / 0025
Replacing version dated / version: 06.12.2016 / 0024
Valid from: 19.06.2017
PDF print date: 19.06.2017
AUTOL Profi DK-Kat
Art.: 1123

Symptoms:
- unconsciousness
- drop in blood pressure
- vomiting
- headaches
- cramps
- drowsiness
- mucous membrane irritation
- dizziness
- nausea

Specific target organ toxicity - repeated exposure (STOT-RE), oral:
- NOAEL: 200 mg/kg bw/d Mouse

Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:
- NOAEC: 0,6384 mg/l Rat

SECTION 12: Ecological information
Possibly more information on environmental effects, see Section 2.1 (classification).
See section 2.

<table>
<thead>
<tr>
<th>AUTOL Profi DK-Kat Art.: 1123</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toxicity / effect</strong></td>
</tr>
<tr>
<td>12.1. Toxicity to fish:</td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
</tr>
<tr>
<td>12.2. Persistence and degradability:</td>
</tr>
</tbody>
</table>

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics

<table>
<thead>
<tr>
<th><strong>Toxicity / effect</strong></th>
<th><strong>Endpoint</strong></th>
<th><strong>Time</strong></th>
<th><strong>Value</strong></th>
<th><strong>Unit</strong></th>
<th><strong>Organism</strong></th>
<th><strong>Test method</strong></th>
<th><strong>Notes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>NOELR</td>
<td>28d</td>
<td>0,17</td>
<td>mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>NOELR</td>
<td>21d</td>
<td>1,22</td>
<td>mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>NOELR</td>
<td>72h</td>
<td>1000</td>
<td>mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.2. Persistence and degradability:</td>
<td>28d</td>
<td>69</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 2-Ethylhexylnitrate

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>1,88</td>
<td>mg/l</td>
<td>Brachydanio rerio</td>
<td>Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>EC50</td>
<td>48h</td>
<td>&gt;12,6</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>Regulation (EC) 440/2008 C.2 (DAPPHNIA SP. ACUTE IMMOBILISATION TEST)</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.5. Results of PBT and vPvB assessment

- **No PBT substance, No vPvB substance**

#### Other information:

- **AOX**: 0 %
- **Water solubility**: Slight

### 2-Ethylhexanol

<table>
<thead>
<tr>
<th>Toxicity / effect</th>
<th>Endpoint</th>
<th>Time</th>
<th>Value</th>
<th>Unit</th>
<th>Organism</th>
<th>Test method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Toxicity to fish:</td>
<td>LC50</td>
<td>96h</td>
<td>17,1</td>
<td>mg/l</td>
<td>Leuciscus idus</td>
<td>Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to daphnia:</td>
<td>EC50</td>
<td>48h</td>
<td>39</td>
<td>mg/l</td>
<td>Daphnia magna</td>
<td>Regulation (EC) 440/2008 C.2 (DAPPHNIA SP. ACUTE IMMOBILISATION TEST)</td>
<td></td>
</tr>
<tr>
<td>12.1. Toxicity to algae:</td>
<td>EC50</td>
<td>72h</td>
<td>11,5</td>
<td>mg/l</td>
<td>Scenedesmus subspicatus</td>
<td>Regulation (EC) 440/2008 C.3 (FRESHWATER ALGAE AND CYANOBACTERIA GROWTH INHIBITION TEST)</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability:

- **COD**: 14d 100 %
- **Readily biodegradable**

---

12.3. Bioaccumulative potential:

- **Log Pow**: 6-8
- **High**

12.5. Results of PBT and vPvB assessment

- **No PBT substance, No vPvB substance**

A notable biological accumulation potential has to be expected (LogPow > 3).
12.2. Persistence and degradability:

<table>
<thead>
<tr>
<th>DOC</th>
<th>5d</th>
<th>&gt; 95 %</th>
<th>OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)</th>
<th>Readily biodegradable</th>
</tr>
</thead>
<tbody>
<tr>
<td>5d</td>
<td>&gt; 95</td>
<td>%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential:

| Log Pow | 2,3-3,2 | Low |

12.4. Mobility in soil:

Not to be expected

12.5. Results of PBT and vPvB assessment

No PBT substance, No vPvB substance

Toxicity to bacteria: EC50 24h > 300 mg/l activated sludge

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of.

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

13 07 03 other fuels (including mixtures)
14 06 03 other solvents and solvent mixtures

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Implement substance recycling.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number: 3082

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (KEROSENE,2-ETHYLHEXYL NITRATE)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Classification code: M6

LQ: 5 L

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code: -

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (KEROSENE,2-ETHYLHEXYL NITRATE)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

EmS: F-A, S-F
14.5. Environmental hazards: environmentally hazardous

**Transport by air (IATA)**

14.2. UN proper shipping name:
Environmentally hazardous substance, liquid, n.o.s. (KEROSENE,2-ETHYLHEXYL NITRATE)

14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards: environmentally hazardous

**14.6. Special precautions for user**

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

Hazardous goods under the transport regulations listed above may be subject to special regulations. For details please consult the relevant transport regulations.

---

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Observe restrictions:
Yes
Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Notes to Annex I</th>
<th>Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements</th>
<th>Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2</td>
<td>200</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

The Notes to Annex I of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 96.63 %

**15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

---

**SECTION 16: Other information**

Revised sections: 8, 15
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.
Employee training in handling dangerous goods is required.

**Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):**

<table>
<thead>
<tr>
<th>Classification in accordance with regulation (EC) No. 1272/2008 (CLP)</th>
<th>Evaluation method used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4, H302</td>
<td>Classification according to calculation procedure.</td>
</tr>
</tbody>
</table>
The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

Acute Tox. — Acute toxicity - oral
Asp. Tox. — Aspiration hazard
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Acute Tox. — Acute toxicity - dermal
Acute Tox. — Acute toxicity - inhalation
Skin Irrit. — Skin irritation
Eye Irrit. — Eye irritation
STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIHAmerican Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
BMGV Biological monitoring guidance value (EH40, UK)
BOD Biochemical oxygen demand
BSEF Bromine Science and Environmental Forum
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
DT50 Dwell Time - 50% reduction of start concentration
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EC European Community
RID  Règlement concernant le transport international ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT  Self-Accelerating Decomposition Temperature
SAR  Structure Activity Relationship
SU  Sector of use
SVHC  Substances of Very High Concern
Tel.  Telephone
ThOD  Theoretical oxygen demand
TOC  Total organic carbon
TRGS  Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG  United Nations Recommendations on the Transport of Dangerous Goods
VbF  Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC  Volatile organic compounds
vPvB  very persistent and very bioaccumulative
WHO  World Health Organization
wwt  wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.

These statements were made by:
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